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Serial No. 09/667,528   **Art Unit:** 2631

REMARKS/ARGUMENTS

Reexamination of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current amendment, Applicants basically:

1. Amend claims 12 to moot the rejection under 35 USC §112, second paragraph.
2. Amends independent claim 33 to include therein the $K<L+N$ type limitations of the other independent claims.
3. Thank the Examiner for the indication of allowable subject matter in claims 9-10.
4. Thank the Examiner for the indication of allowance of claims 23-24.
5. Respectfully traverse all prior art rejections.
6. Advise the Examiner of the simultaneous filing of a Petition to Extend.

B. PATENTABILITY OF THE CLAIMS

Claims 1, 4, 6-7, 11-12, 13, 15, 17-19, 25, 28 and 30-34 stand rejected under 35 USC 102(b) as being anticipated by U.S. Patent 5,594,797 to Alanara et al. Claims 2-3, 5, 8, 14, 16, 20-22, 26-27 and 29 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Patent 5,594,797 to Alanara et al in view of U.S. Patent 6,507,629 to Hatakeyama et al. All prior art rejections are respectfully traversed for at least the following reasons.

As previously explained, Applicants combine respective N data bits of each channel encoded code symbol with associated L control bits into a control information/code symbol data word of $L+N$ bits, and then encode the $L+N$ bit control information/code symbol data words into data words of K bits, where $K<L+N$. See, for example, Applicants' Fig. 6 wherein data source DS outputs the bit stream US, which is

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fed to a convolution coder CC[1]. The result of the channel encoding in the channel encoder CC is a bit stream BS which contains channel encoded (CC) code symbols. The channel encoded code symbols are then combined with control information CI in the combining memory COM. The combined code words (Fig 4) are then fed to the interleaving memory TM and the output BS is fed to a CDMA modulator MOD.

Thus, in contrast to the prior art, Applicants combine channel encoded code symbols with the control Information CI in the combining means COM. The combined code word is then encoded in the CI/CSENC and is (after interleaving) again decoded in the CI/CS decoder. Thus, Applicants' combining means combines channel encoded (CC) code symbols with the control information and then codes these combined code words.

Moreover, Applicants stress that ALL independent claims now include limitations comparable to limitations "a" and "b" of independent claim 1, e.g.,

a)   ... combining the respective N data bits of each channel encoded code symbol with the associated L control bits into a control information/code symbol data word of L+N bits;

b)   ... encoding said L+N bit control information/code symbol data words into data words of K bits, where K<L+N, ...

As shown in Fig. 1 of U.S. Patent 5,594,797 to Alanara et al., coded speech is fed from speech coder 130 to channel coder 132. In voice encryption module 134, a mask value from a mask storage register 352 is XORed (by XOR adder 350) with the voice bit stream. The mask value is mask storage register 352 is obtained from a counter 354 which, after being reset, counts up the bits in the voice bit stream. Telephone processor 116 supplies the mask value of register 352. *See*, e.g., col. 8, lines 38 – 56 and Fig. 4.

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[1]   In accordance with page 5, last paragraph of the specification, the convolution

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Among other deficiencies of the rejection, XORing of two values, regardless of the nature or content of those values, does not constitute a combining of N data bits and L control bits into a control information/code symbol data word of L+N bits. Nor does an XORing result in encoding of L+N bit control information/code symbol data words into data words of K bits, where K<L+N.

Thus, U.S. Patent 5,594,797 to Alanara et al. does not teach or suggest an encoding of L+N to K<L+N. Only a general function of Alanara's telephone processor 116 is described; the encoding into K is not disclosed anywhere.

Moreover, despite Alanara's failure to combine in the claimed manner, Alanara lacks any encoding between the unit 134 and the interleaver 136 in Fig. 1, which is relevant at least to some claims. Clearly, neither U.S. Patent 5,594,797 to Alanara et al. nor U.S. Patent 6,507,629 to Hatakeyama et al have an encoder positioned between an alleged "combiner" (e.g. perhaps the unit 134) and interleaver. In fact, as previously explained, U.S. Patent 6,507,629 to Hatakeyama et al does not have any structure comparable to Applicants' claimed encoder.

Further, the purpose of Alanara's masking is for encryption, not control of a downstream transmitter (e.g., power control), as required by various claims such as claims 4, 11, 17, 19, 27, 28, 32, and 34.

C. MISCELLANEOUS

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

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coder CC is only an example of a channel encoder CC.

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    The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

    Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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